The Business Review
2013, Vol. 2, No. 1 & 2, 51- 62 ISSN 1996-3637

Productivity Measurement of a Private Commercial Bank in Bangladesh: A Study on Bank Asia Ltd.

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Abstract *- The commercial banking system in Bangladesh is service oriental and labor-intensive. Employee is the main input and therefore employee's productivity is the main measure of banking productivity. This study is conducted to evaluate the productivity of Bank Asia Ltd. Although, there is no single well accepted theoretical approach to measure productivity of a service industry, an attempt has been made here to measure productivity through partial approach and total approach on the basis of some indicators. The study reveals that the productivity performance of Bank Asia Ltd showed upward trends during 2001 to 2009.*

Key Words: Bank, Productivity, Performance.

JEL Classification: G21, D24

1. INTRODUCTION

1.1 Banking picture in Bangladesh

A bank as a matter of fact is just like a heart in the economic structure and the Capital provided is like blood in it. As long as blood is in circulation the organs will remain sound and healthy. If the blood is not supplied to any organ then that part would become useless. So if the finance is not provided to agriculture sector or industrial sector, it will be destroyed. Loan facility provided by banks works as an incentive to the producer to increase the production.

Banking is now an essential part of our economic system. Modern trade and commerce would almost be impossible without the availability of suitable banking services because of banking promotes savings. All manner of people, from the ordinary labors and workers to the rich land owners and businessmen, can keep their money safely in banks and saving centers. Secondly, banking promotes investments. Banks easily invest the money in industry, agriculture and trade. They either invest it directly or advance loans to other investors. Thirdly, it is most through banks that foreign trade is carried on. Whether we export or import, it is through banks that money is transferred from one country to another (Chowdhury T.A and Kashfia A, 2009). For example, bills of exchange and letters of credit are the regular ways banks use to transfer money. A number of recent studies, however, indicate that the banking sector plays a more important role than it was believed earlier

1.2. An overview of Bank Asia Ltd

Bank Asia limited is a scheduled commercial bank in the private sector established under the Banking Company Act 1991 and incorporated as a public limited Company under the Company Act 1994 to carry out banking business in Bangladesh. The bank went for first public issue of its shares on 23rd September, 2003. Bank Asia Limited acquired the business of bank of Nova Scotia (incorporated in Canada); Dhaka in the year 2001 and the bank also acquired the Bangladesh Operations of Muslim Commercial Bank Limited. The bank carries its banking activities through 41 branches in the country as on 31st December, 2010.

2. LITERATURE REVIEW

With respect to the Performances of commercial banking sector, foreign and national experts undertook number of studies. Almazari A.F (2012) has attempted to analyze the financial performance of seven selected Jordanian commercial banks and pointed out that there exists a positive correlation between financial performance and asset size, asset utilization and operational efficiency. Moreover, the study has anticipated making contributions in the field of banking and academic field.

Chowdhury T.A and Kashfia A, (2009), stated that selected private commercial banks create employment opportunities for more than twelve thousand people. It has been observed that net income of the selected banks have increased as well as earning per share. They also said that profitability of the selected banks is quite satisfactory where loan recovery rate indicated the credit efficiency of the banks. They also identified that although almost every year's loans and advances of selected banks have been increased from previous year, the growth rate of loans and advances is not satisfactory.

Lalarukh Farjana and Hossain M.Z (2008) observed performance of private and national commenrcial banks of Bangladesh for the period of 2002-2005 and they pointed out that in financial category, PCBs performed better than that of NCBs but NCBs are very much desirable from social point of view and it is very difficult to accomplish dual objectives of monetary profitability and social consideration for the NCBs at the same time.

Chowdhury and Islam (2007) stated that deposits and loan advances of Nationalized Commercial Banks (NCBs) are less sensitive to interest changes than those of Specialized Banks (SBs). So SBs should not make abrupt change in lending or deposit rates by following the NCBs. If NCBs change their lending or deposit rates, their deposits or loans and advances will be affected less than those of SBs. Moreover, deposits of NCBs have higher volume and higher volatility than those of SBs.

Shakoor, S.A (1989) pointed out "Productivity of nationalized commercial banks in Bangladesh had an increasing trend during 1972-86 that declined a little during 1983 to 1985 although there was an improvement during 1986. The major factors determining the productivity of NCBs are continuous increase in operational expenses, current expenses, establishment expenses, non-current expenses etc. Virtually spread to working fund had also a greater impact on the return on investment of the Banks. The governing factors of the increasing productivity are that there were better deposit mobilization and increasing advances in various sectors of NCBs. There was better recovery because of the effective utilization of the borrowed funds. Private Banks in Bangladesh showed better productivity by way of increasing earning through working fund, deposit mobilization and advances during 1983-86"

Abedin, Z. (1989) in a paper entitled "A preliminary note on measurement of productivity in the commercial banks of Bangladesh" showed that the cost control measures and improvement in earnings are essential elements for increasing the level of productivity. To enhance the efficiency of the bank employees, they suggest certain degree of mechanization and computerization, manpower planning and performance budgeting. Proper management of assets and liabilities would help to reduce cost and add to banks productivity.

3. OBJECTIVES OF THE STUDY

In this study an attempt has been made to evaluate the productivity performance of Bank Asia Ltd. However, the study covered the following specific objectives:

- Measuring the productivity of Bank Asia Ltd.
- Determining the factors affecting the productivity level of Bank Asia Ltd.
- Suggesting measures for improvement of the productivity level of Bank Asia Ltd.

4. METHODOLOGY AND DATA COLLECTION

The study is exclusively a descriptive research on productivity measurement of Private commercial banks in Bangladesh based on bank asia Ltd. Thus, the study is purely based on the information from secondary data sources. In order to achieve the specific objectives of the study, secondary sources of data have been used. These data have been collected mainly from the annual reports of Bank Asia Ltd. The data collected for the purpose of the study involves the examination of annual reports for the year 2001 to 2009 of bank asia Ltd. In addition, data was gathered from Books, papers, articles, Specialized International Journals, the World Wide Web (Internet), and relevant previous studies.

Additionally, it is documented that annual report is the most widespread and accepted document (Belal, 2000, Khan et al., 2010) for corporate communication in Bangladesh. This study uses a descriptive financial analysis to describe, measure, compare, and classify the financial situations of the selected commercial bank. In the study an attempted has been made here to measure productivity through partial approach and total approach on the basis of some indicators. In this study some productivity indicators are analyzed to measure the employee productivity such as deposit per employee, loan and advances per employee, investment per employee etc. On the other hand to measure partial approach, growth of branches, growth of employee, deposit per employee, growth of branches income, investment per employee, loan & advance per employee are taken into consideration and to measure total approach, bank total income & expenditure relationship and gross income & expenditure relationship are taken into consideration. In measuring the productivity, the output has been defined as gross income, deposit, loans and advances of the Bank. On the other hand employees, branches and various expenditures have been treated as input. The descriptive statistics have been applied here for the purpose of making the report informative and representative.

5. RESULTS AND DISCUSSION

5.1 Productivity trends of bank Asia Ltd. using partial approach

Measurement of partial productivity refers to the measurement solutions which do not meet the requirements of total productivity measurement, yet, being practicable as indicators of total productivity. In practice, measurement in production means measures of partial productivity. The term of partial productivity illustrates well the fact that total productivity is only measured partially – or approximately.

5.1.1 Employe e Productivity of Bank Asia Ltd.

The commercial banking system in Bangladesh is service oriental and labor-intensive, employee is the main input and therefore employee's productivity is the main measure of banking productivity. To evaluate the productivity performance, we can consider deposit per employee, operating profit per employee, non-interest income per employee etc. In this case, we consider the following indicators.

5.1.2 Growth of Branches of Bank of Asia Ltd .

Table 1. and graph-1 shows the growth pattern of number of branches of Bank of Asia Ltd. The growth of branches is highest in the year 2006 where there were 26 branches. The lower growth percentage is in the year 2005 where there were 19 branches. It indicates the increasing and decreasing of branches growth comparing to base year 2001.

Table 1. Increasing Branches of Bank Asia Ltd

SL	Year	No. of Branches	Growth (%)
1	2001	07	
2	2002	12	71.43
3	2003	14	16.67
4	2004	17	21.43
5	2005	19	11.76
6	2006	24	26.32
7	2007	29	20.83
8	2008	33	13.79
9	2009	41	24.24

Source: *Annual Report of Bank Asia Ltd.2001-2009*

5.1.3 Growth of Employee of Bank of Asia Ltd

Number of employees of Bank of Asia Ltd have been shown in table: 2 and graph-2. The highest no of employees are working in the bank is 1031 in the year of 2009. The growth percentage is higher in the year 2002 and lowest in 2005. Average growth of employee of Bank Asia is 30.08 that are comparable to the yearly growth rate.

Table 2. Increasing Employees of Bank Asia Ltd

S.L	Year	No. of Employees	Growth (%)
1	2001	137	
2	2002	214	64.01
3	2003	273	27.57
4	2004	331	21.25
5	2005	397	19.94
6	2006	515	29.72
7	2007	639	24.08
8	2008	802	25.51
9	2009	1031	28.55

Source: Annual Report of Bank Asia Ltd.2001-2009

5.1.4. Deposit per employee

Table 3shows that deposits per employee rose from tk. 28.10 million in 2001 to tk. 49.10 million in 2006 with a gradual upward trend in employee productivity. The trend had been declined in 2007. The highest level of deposit per employee attained by this bank in the year 2009 out of total nine years of operations of Bank Asia Ltd, the years 2009 was remarkable for attaining higher productivity. For this year, the productivity index of deposits per employee was 114.

Table 3. Deposit per employee of Bank of Asia (Tk. in Million)

Year	No of Employee	Deposit received	Deposit per Employee	Index
2001	137	3848.80	28.10	60

2002	214	7008.50	32.75	70
2003	273	10431.50	38.21	82
2004	331	13471.00	40.70	87
2005	397	18500.10	46.60	100
2006	515	25289.10	49.10	105
2007	639	30004.10	46.95	101
2008	802	42435.24	52.19	112
2009	1031	54832.82	53.18	114

Note: 2005 considered as base year

Source: *Annual Report of Bank Asia Ltd.2001-2009*

5.1.5 Loans and Advances per employee

Table 4shows the volume of Loans and Advances sanctioned per employee. Loans and Advances made per employee rose from Tk. 22.00 million to Tk. 45.01 during the year 2001 to 2005. In the year 2006 and 2007 there was a decrease in Loans and Advances disbursement. The year 2008 recorded high productivity. For that year the productivity index of loans and advances per employee was 111.

Table 4. Loans and Advances per employee (Tk. in Million)

Year	No. of Employee	Loan and Advances Sanctioned	Loans and Advances per employee	Index
2001	137	3012.70	22.00	49
2002	214	5449.10	25.43	56
2003	273	8189.80	30.00	67
2004	331	11861.20	35.83	80
2005	397	17869.84	45.01	100
2006	515	22255.64	43.21	96
2007	639	28456.94	44.53	99
2008	802	39975.00	49.84	111
2009	1031	50267.92	48.76	108

Note: 2005 considered as base year

Source: *Annual Report of Bank Asia Ltd.2001-2009*

5.1.6 Branch Productivity

Table 5 shows the volume of gross income handle by each branch of the Bank Asia Ltd. From this table, the branch productivity i.e. income per branch had an increasing trend from 2001 to 2009. During the study period the highest productivity was attained in the year 2009.

5.1.7 Investment per Employee

Table 6 and graph-6 exhibits the volume of investment made per employee. It shows increasing trend from 2001 to 2004. But there after investment per employee decreased during the Year 2005. Again the trend increases during the period 2006-2009. The year 2004 recorded the higher productivity because of higher investment comparing to number of employee of Bank Asia.

Table 6. Investment per Employee in Bank Asia Ltd (Tk. in million)

Year	No. of Employee	Investment	Investment per Employee	Index
2001	137	380.330	2.78	49
2002	214	1337.537	6.25	110
2003	273	2496.695	9.15	161
2004	331	3240.516	9.79	172
2005	397	2256.28	5.68	100
2006	515	3345.33	6.50	114
2007	639	4203.14	6.60	116
2008	802	6133.81	7.65	135
2009	1031	9663.10	9.37	165

Note: 2005 is considered as a base year. Source: Annual Report of Bank Asia Ltd.2001-2009

5.2 Productivity trends of bank Asia Ltd using Total Approach

Under the total Approach the level of productivity of Bank Asia Ltd, is measured as the ratio of the incremental outputs and incremental input. The responsiveness of outputs measured as the proportionate change in income in relation to the proportionate change in inputs or expenditure is called here the productivity of Bank Asia Ltd. 2005 was selected as the base year.

5.2.1 Growth trend of the level of productivity

Table 7 shows the growth trend of the level of productivity of Bank Asia Ltd during the period stating from 2001 to 2009. The productivity co-efficient went to below unity in the year 2002.

Table 7. Trends of productivity of Bank Asia Ltd (Tk. in million)

Year	Total Income (I)	Total Expenditure (E)	Change in Income ΔI	Change in Expenditure ΔE	ΔI\I	ΔE\E	ΔI\I ΔF\E	Index
2001	480.44	354.74	----	---	-----	----	----	----
2002	931.269	701.60	450.83	346.86	0.48	0.50	0.96	110
2003	1498.50	1079.40	567.23	377.80	0.38	0.35	1.08	124
2004	1867.80	1209.05	369.30	129.65	0.20	0.11	1.82	209
2005	2524.90	1724.18	657.10	515.13	0.26	0.30	0.87	100
2006	3774.18	2702.40	1249.40	978.22	0.33	0.36	0.92	106
2007	4959.02	3384.30	1184.84	681.90	0.24	0.20	1.20	138
2008	6631.55	4726.67	1672.53	1342.37	0.25	0.28	0.89	102
2009	8627.52	6010.48	1995.97	1283.81	0.23	0.21	1.10	126

Note: 2005 is considered as base year

Source: Annual Report of Bank Asia Ltd.2001-2009

After that, it was more than unity and the situation improved much up to the year 2003-2004. Again it went below unity in the year 2005-2006. But In the year 2007 the productivity co-efficient were more than unity. But again it went below unity in the year 2008. But in the year 2009 the productivity co-efficient were more than unity. The productivity performance of the Bank Asia Ltd was not good in the year 2005, because of the higher growth of expenditure in relation to income.

5.2.2.Factors affecting the productivity

Productivity is largely influenced by the structure of income and expenditure as well as their changes over the years. The main constituents of bank incomes are interest, discount, commission, exchange, brokerage and other miscellaneous receipt that is known by banks annual report as well as financial statement. The main items of bank expenditures are interest on deposit, borrowing, establishment expenses, and other current and non-current expenses.

Table 8 shows that interest income and interest expenditure both were dominating factors of income and expenditure of the bank respectively. In the year 2001 and 2002, the income interests were 74.75% and 76.51% respectively of total income but in 2007 it was 73.85% with a declining trend. During the study period, bank attained largest share of interest income in total income in 2002 and the lowest share was in 2004. On the other hand interest expenditure in total expenditure shows an increasing trend during the study period (2001 – 2006). But in the year 2007-2009 it is decreasing. It shows a significant sign of the banks productivity.

Table 8. Changes in the Structure of Income and Expenditure of Bank Asia Ltd (%)

Year / Income & expenditure	2001	2002	2003	2004	2005	2006	2007	2008	2009
Income	100	100	100	100	100	100	100	100	100
a. Interest income	74.75	76.51	72.77	69.12	71.46	75.31	73.85	75	72.41
b. Investment	3.83	5.42	8.65	10.86	8.18	6.60	9.42	9.16	11.74
c. Commission	18.53	14.13	15.47	18.12	17.48	14.73	14.12	12.83	13.65
d. Others	2.89	3.94	3.11	1.90	2.88	3.36	2.61	3.03	2.20
Total Expenditure	100	100	100	100	100	100	100	100	100
a. Interest	71.12	75.40	76.19	76.00	78.85	81.00	80.00	79.10	74.84
b. Others operating expenses*	28.88	24.60	23.81	24.00	21.15	19	20	20.90	25.16

*Other operating expense includes staff, premises, equipment and other expenses.
Source: Appendix table

5.2.3 Policy Implications

This study observed that the interest income and interest expenditure both were dominating factors of income and expenditure of this bank. So this study suggests that Bank Asia Ltd`s poor performance was mainly due to less control over expenses. The findings also suggest that the expenditure of this bank has been increased over the years. This has serious consequences on the productivity. By improving this performance and initiating effective cost control measures to bringing down the expenditure per unit of income. Bank Asia Ltd would be able to enhance the level of its productivity.

6. CONCLUSION

The analysis on productivity and interpretation of quantitative data indicates that productivity of Bank Asia Ltd showed an increasing trend during the study period 2001 to 2009. Earning through deposit mobilization, loan and advance etc during the period increased the productivity of the bank. The better productivity occurred due to maintaining quality management in respects of sanctioning, disbursement and recovery of credit, project appraisals, customer services etc. So productivity of the bank Asia Ltd revealed that there was increasing deposit mobilization per employee had an increasing trend during the period under study. Similarly, loan and advance per employee had an increasing trend during the year 2001 to 2005, but after that, there was a decreased trend in loan and advancs in the year 2006 after that it is increasing regularly 2007-2009. Again investment per employee in Bank Asia Ltd had an increasing trend from 2001 to 2006, while it showed decreasing trend in 2007. It's year wise analysis revealed that it was highest in 2004 and lowest in 2001.

The main mission of Bank Asia Ltd. is to assist in bringing high quality service to their customers and to participate in the growth and expansion of national economy. So as a well off private commercial bank in Bangladesh with all computerized branch has a tremendous prospect by launching new and modern innovating functions of bank.

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Appendix. Income and Expenditure of Bank Asia Limited

Year	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Total Income	480438040	931269065	1498477067	1867753430	2524897300	3774275879	4959017786	6631552065	8627520467
Interest	359135225	712485483	1090438893	1291082809	1804370886	2842344252	3662378055	4973111164	6247494941
Investment	18431546	50543010	129619286	202791142	206647420	249375082	467160954	607148807	1012991711
Commission	89025063	131551889	321824960	338387296	441299947	556310067	700207628	850633162	1177501692
Others	13846206	36688683	46593928	35492186	72579047	126246478	129372049	200658932	189532123
Total Expenditure	354737948	701604910	1079385335	1209053807	1724178564	2702398720	3384205011	4726673491	6010482765
Interest Paid	252280514	528834641	822434753	918599945	1356905568	2186400440	2705032734	3739016507	4498016814
Others	102457434	172770269	256950600	290453862	364572996	515998280	679262277	987565985	1512465951

Source: Annual Report of Bank Asia Ltd.2001-2009